Investigating the power parameters of...

2,500 mm wide and 18 m in length are rolled on the stands. The operation of the 2-high stand consists of 4 longitudinal passes, tilting through 90° and 6 - 8 passes for lateral deformation, with 2 - 4 subsequent longitudinal passes. In order to ensure accurate dimensions, a special gauge is used in which several rods of the same height are mounted instead of one and in which the wire pickups are connected in series, thus not depending on the load distribution between the rods. The power parameters were determined by rolling 41 slabs (2.7 - 4.7 tons) on the 2-high and 36 strips on the 4-high stand. The rolling conditions on the 2-high stand are given in a table. The pressure values obtained for the 2-high stand are 1,040 tons during the first longitudinal rolling, 1,940 tons during the lateral rolling and 2,360 tons during the second longitudinal rolling. The metal pressure on the 4-high stand is 2,090 tons, usually the stand works with 1,300 - 1,700 tons pressure and a reduction of 20 - 25%. The pressures actually applied during rolling remain below the permissible level. The results were also checked by comparing them with experimental values for the motor torques, calculated for various metal pressures. The comparison yielded practically identical values. The pressure gaugings were carried out at roll-rotation rates of 30 - 45/min on the 2-high stand and at 60 - 80 rpm on the 4-high stand. By increasing the roll

Investigating the power parameters of...

speed the metal pressure could be raised by 8 - 10% on the 2-high stand and by 5 - 7% on the 4-high stand. The final conclusions drawn from these tests were that the 2-high and the 4-high stands of the 2,800 mm strip mill are not fully loaded when rolling St.3 and St.3kp sheets, and, taking into account the motor capacity, the reductions could be increased by 30 - 40%, thus raising the stand output by 10 - 15%. However, actually it is only possible to reduce the number of passes from 8 to 6 when rolling laterally. The best way to improve the operation of the mill is by modifying the reductions on both stands in such a way, that the reduction in thickness on the 2-high stand be increased thus producing a thinner strip for the 4-high stand. There are 3 figures and 9 references: 1 non-Soviet-bloc and 8 Soviet-bloc. The reference to the English-language publication reads as follows: A. Nadai, M. I. Manjone. Journal of Applied Mechanics, 1941, no. 6.

Card 3/3

S/130/62/000/003/003/003
A006/A101

AUTHOR: Krivonosov, Yu. I.

TITLE: The efficiency of using steel rolls, hardfaced and cast iron rolls on the finishing stand of mill 2800

PERIODICAL: Metallurg, no. 3, 1962, 27-30

TEXT: To replace insufficiently resistant 60 Х Н(60ХнN) and 60 Х Г (60КhG) steel rolls on the finishing stand of sheet rolling mill 2800, tests were made with hardfaced steel and cast iron rolls. The high strength of the hard faced layer of steel rolls increases their service time between exchanges to two or three shifts, against one when 60 KhN and 60KhG steel rolls are used. The roll, worn out to a minimum diameter, can be hardfaced 3 - 5 times. The thickness of the hardfaced layer is 10 - 12 mm over the diameter. During regrinding a 0.8 - 1.5 mm thick layer is removed. The hardfaced roll withstands about 16 - 20 regrindings and during this time can roll 26,000 - 28,000 tons of sheet metal. The deficiency of hardfaced rolls appears in the unsatisfactory surface condition of the rolled metal. Experimental cast-iron rolls were produced analogous to the design of steel rolls with the possibility of using antifriction bearings. The

Card 1/2

The efficiency of using steel rolls ...

S/130/62/000/003/003/003
A006/A101

following types of rolls were manufactured: non-alloyed with a chilled layer, low-phosphorus alloyed with magnesium and nickel; molybdenum-alloyed with a chilled layer. Tests proved the advantages of cast-iron rolls over all the other ones employed on mill 2800. It can be supposed that when rolling killed steel ingots and slabs the cast-iron rolls will operate during 4 - 6 shifts and 4,500 - 5,000tons of metal will be rolled, maintaining satisfactory contours and surface roughness. The strength of tested rolls is shown in the table below:

Roll material	Rolled per 1 cycle, tons	Rolled during the service life of the roll, tons
Steel (60KhG, 60KhN)	650	17,000 - 17,500 *
Hardfaced	1,480	26,000 - 28,000 *
Non alloyed cast-iron	3,075	35,000
Low-phosphorus magnesium-nickel cast-iron	4,450	60,000
Molybdenum cast-iron	3,110	50,000
*) in the work on slabs		

The information includes instructions on the exchange of rolls. There is 1 figure and 1 table.

Card 2/2

BROVMAN, M.Ya.; GERTSEV, A.I.; ZELICHENOK, B.Yu.; KRIVONOSOV, Yu.I.; RIMEN, V.Kh.; SOKOL, V.N.; MEL'NIKOV, A.F.

Investigating the electric drive parameters of the 2800 mill in the Orsk-Khalilovo Metallurgical Combine. Stal' 22 no.1:45-48 Ja '62. (MIRA 14:12)

1. Yuzhnoural'skiy mashinostroitel'nyy zavod i Orsko-Khalilovskiy metallurgicheskiy kombinat.
(Ural Mountains—Rolling mills—Electric driving)

ACCESSION NR: AP4040498 S/0136/64/000/006/0063/0066

AUTHOR: Dolzhenkov, F. Ye.; Krivonosov, Yu. I.

TITLE: Adhesion strength between cladding and steel base in vacuum rolled titanium steel

SOURCE: Tsvetny*ye metally*, no. 6, 1964, 63-66

TOPIC TAGS: titanium clad steel, vacuum clad steel, titanium cladding, cladding adhesion strength

ABSTRACT: The adhesive strength of the cladding in titanium clad steel produced by vacuum rolling was found to depend upon the rolling temperature, the reduction, and the carbon content of the steel. Tests showed that rolling at 1000—1050C yields the highest adhesive strength of cladding. A 15—20% reduction in single pass rolling ensures strong adhesion which reaches 20—25 kg/mm^2 with a 20% reduction; further increase to 50% reduction has almost no effect on the adhesive strength. With a carbon content of 0.028 the adhesion strength was 26 kg/mm^2; it dropped to 14 kg/mm^2 with carbon content of 0.45%. Some alloying elements improve adhesive strength; in the case of 09G2 steel which had 0.12%C, the adhesive strength was equal

Card 1/2

ACCESSION NR: AP4040498

to that obtained with steel having 0.028% carbon. The thickness and structure of the brittle transition zone between the cladding and base can be controlled by adjusting the temperature and reduction. When the temperature is increased with no change in reduction, the thickness of the zone grows; if the reduction is increased with the temperature unchanged, the zone thickness decreases. The duration of heating for rolling, within 1—3 min per millimeter of total thickness, and the roughness of the contact surfaces have little or no effect on the adhesive strength. Orig. art. has: 4 figures.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut metallov (Ukrainian Scientific Research Institute for Metals)

SUBMITTED: 00 DATE ACQ: 06Jul64 ENCL: 00

SUB CODE: MM NO REF SOV: 008 OTHER: 000

ATD PRESS: 3041

Card 2/2

DOLZHENKO, F.Ye.; KRIVONOSOV, Yu.I.

Strength of cohesion of the layers of a titanium-steel bimetal during its rolling in vacuum. Tsvet. met. 37 no.6:63-66 Je '64. (MIRA 17:9)

titanium bimetal

strength of the layers (25-30 kg/cm^2)

DOLZHENKOV, F.Ye.; KRIVONOSOV, Yu.I.

Investigating the rolling of the steel-titanium bimetal in vacuum. Izv. vys. ucheb. zav.; chern. met. 7 no.11:137-141 '64. (MIRA 17:12)

1. Ukrainskiy nauchno-issledovatel'skiy institut metallov.

DOLZHENKOV, F.Ye.; KRIVONOSOV, Yu.I.; PIRYAZEV, D.I.; VOLCHEK, F.R.; BAT', Yu.I.

Production of bimetals by the vacuum rolling method. Met. i gornorud. prom. no.3:34-35 My-Je '64. (MIRA 17:10)

KRIVONOSOV, Yu.I.; MILLER, V.V.; ROSPASIYENKO, V.I.

Decreasing the variation in thickness of heavy-gauge steel during rolling on a 2800 reversing mill. Met. i gornorud. prom. no.5:64-65 S-O '64. (MIRA 18:7)

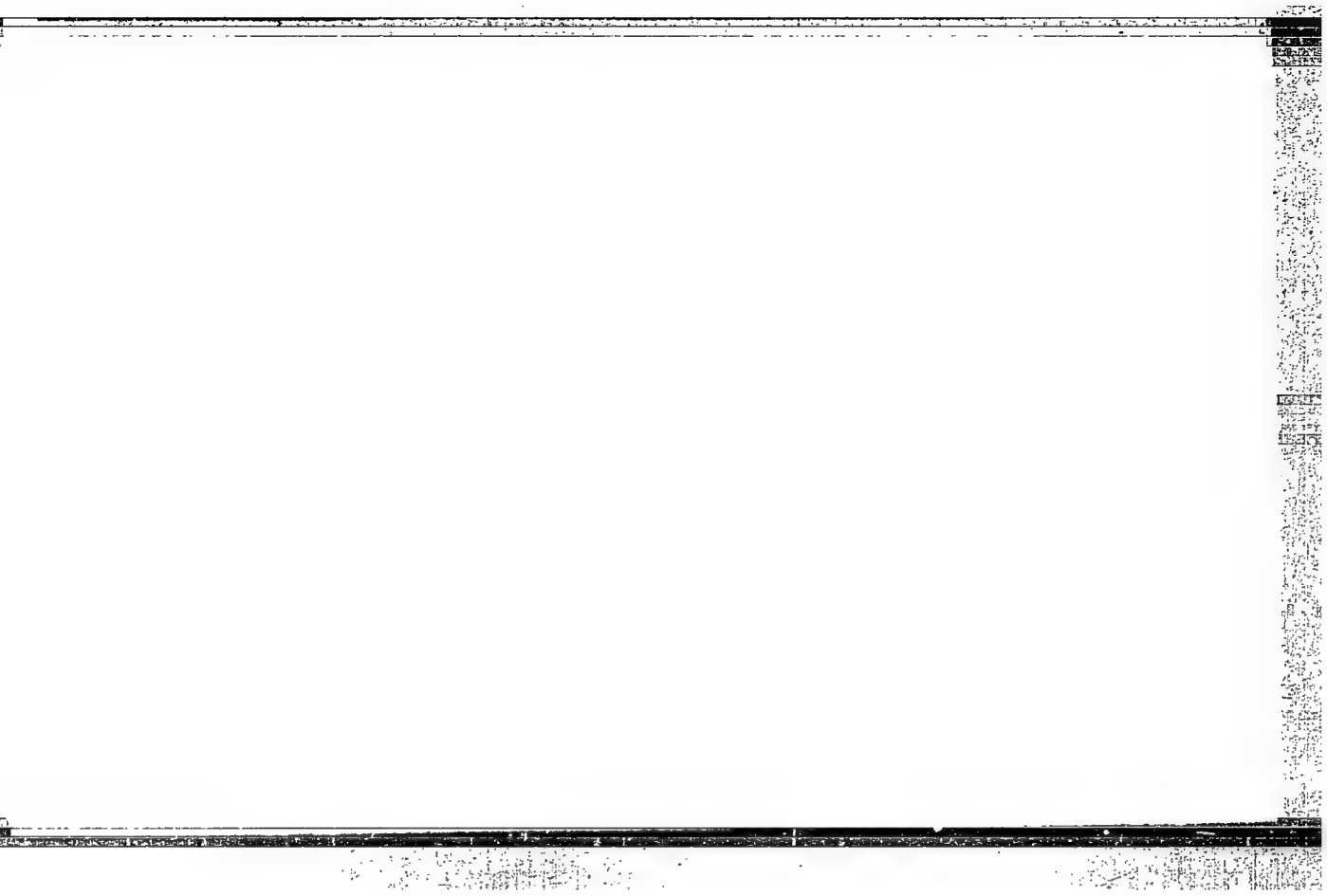
[redacted], P.A.; [redacted], M.I.; [redacted]SOV, Yu.I.; [redacted], I.I.; [redacted], B.M.; SHULGA, Ye.A.

Pack rolling of two-layer sheet. Metallurg 10 no.7:35-36 Jl '65.
(MIRA 18:7)

1. Ukrainskiy Institut metallov i Kommunarskiy metallurgicheskiy zavod.

KRIVONOSOV, Yu.I.

Ways of reducing variations in the thickness of sheets.
Sbor.trud. UNIIM no.11:178-182 '65.
(MIRA 18:11)



APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000826610003-5"

[redacted]

for 10 to 30 days at 2 to 50. For the St.3/Ailanthus pair, the comparison of the

DOLZHENKOV, F.Ye.; KRIVONOSOV, Yu.I.; PIRYAZEV, D.I.; BAT', Yu.I.; VOLCHEK, F.R.

Obtaining bimetal joints by rolling in vacuum. Sbor.trud. UNIIM no.11:183-196 '65. (MIRA 18:11)

L 29809-66 EWT(m)/EWP(t)/ETI/EWP(k) IJP(c) JD/HW
ACC NR: AP6020871 SOURCE CODE: UR/0383/66/000/001/0032/0034

AUTHOR: Piryazev, D. I. (Candidate of technical sciences); Khoroshilov, N. M.; Krivonosov, Yu. I.; Timofeyev, D. I.; Shul'ga, Ye. A.; Syts'ko, A. A. 67 60 B

ORG: none

TITLE: Variations in the thickness of clad sheet 9,14

SOURCE: Metallurgicheskaya i gornorudnaya promyshlennost', no. 1, 1966, 32-34

TOPIC TAGS: metal cladding, sheet metal, metal rolling, metallurgic furnace, thermal conduction, steel/OKh13 steel, Kh17N13M2T steel

ABSTRACT: The authors discuss the variations in thickness of two-layer steel caused by a combination of variations and nonuniformities in the thickness of the individual slabs which make up the pack. These variations may reach ±20% of the nominal value in individual cases. Variations in the thickness was determined for mass produced sheets with a cladding layer of Kh18N10T, Kh17N13M2T and OKh13 steel. The variations in thickness and deviations from nominal value were studied during rolling of bimetal sheet from packs weighing less than 5 tons (small packs) and from packs weighing 10-12 tons (large packs). Sheet rolled from large packs shows less variation in thickness than that rolled from small packets. This is because the large slabs were hot when they were fed into the continuous furnaces and were therefore heated more uniformly. However, completely uniform heating was impossible even in three-zone continuous furnaces. The following furnace conditions are recommended

Card 1/1 UDC: 621.9-419.004

L 29809-66

ACC NR: AP6020871 7

for reducing variations in the thickness of plates rolled on the 2800 mill. Temperature of upper and lower sections in the joining zone should be identical: 1300-1310°C; temperature of the soaking zone should be 1260-1270°C. Total heating time should be divided into 40% for preheat, 30% for joining and 30% for soaking.

Experiments showed that planing the slabs on both sides reduced variations in thickness up to approximately 20%. The lubricating interlayer has a low thermal conductivity and impedes heat exchange between the upper and lower parts of the packet during heating which prevents temperature equalization. This causes variations in the thickness of the finished sheet. It was found that the absolute variation in thickness increases with the thickness of the sheets. The relative variations in thickness are approximately the same for sheets of all thicknesses with the exception of 16 mm sheets for which variations are somewhat lower. In 80% of the cases, deviations from the nominal thickness vary within limits from -10 to +12%. The following recommendations are given for reducing deviations from the nominal thickness using existing equipment: reducing variations in the thickness of initial slabs to ±2 mm by eliminating bending or by planing on both sides; increasing thickness of the upper slab in the pack by 7% as compared with the lower slab; heating the packets in continuous furnaces with equal temperatures for the upper and lower sections in the joining zone, a temperature of 1260°C in the soaking zone and holding in this zone for 30% of the total heating time. Taking part in the work of the article were TsNIIChM specialists L. V. Meandrov, V. A. Ustimenko, A. V. Tkachev and Kommunarskyy Metalurgical Plant specialists S. R. Sarkisyan and A. N. Nesmachnyy. Orig. art. has: 4 figures.

[JPRS]

SUB CODE: 13, 11 / SUBM DATE: none

Card 2/2 FV

ACC NR: AR6009956 SOURCE CODE: UR/0137/65/000/012/D009/D010

AUTHOR: Dolzhenkov, F. Ye.; Krivonosov, Yu. I.; Piryazev, D. I.; Bat', Yu. I.; Volchek, F. R.

TITLE: Production of bimetal compounds by vacuum rolling

SOURCE: Ref. zh. Metallurgiya, Abs. 12D75

REF SOURCE: Sb. tr. Ukr. n.-i. in-t metallov, vyp. 11, 1965, 183-196

TOPIC TAGS: bimetal, metal rolling, titanium, low carbon steel

ABSTRACT: The optimal temperature for commencing the vacuum rolling (R) of Ti-steel bimetal is 1000°C. At higher temperatures liquid phase may form. It is desirable to terminate R at 800°C, since a decrease in temperature leads to a sharp rise in specific pressures as well as to the occurrence of considerable internal stresses in the bimetal layers. A high C content of steel adversely affects the cohesion to Ti, and hence it is desirable to use a steel with a lower C content as the base-layer Me. Reduction in R temperature and increase in reduction of area contribute to the decrease of the transition zone of the steel-Ti bimetal. During R of two-layer and sandwich packs with the P-plates positioned outermost, the difference in

Card 1/2 UDC: 621.771.001

L 42044-66

ACC NR: AR6009956

the deformation of layers increases with increase in reduction of area. As the thickness of the Ti layer decreases, its deformation resistance changes, and this leads to a change in the nonuniformity factor of the plastic deformation of the pack. The broadening of the contact surface of the pack is insignificant, reaching its maximum at the interface. The relation of specific pressure and torque to reduction in area, temperature, thickness ratio and other factors is investigated. 9 illustrations, 1 table. Bibliography of 6 titles. L. Kochenova. [Translation of abstract]

SUB CODE: 13, 11

Card 2/2 af

ACC NR: AP6020740 (A) SOURCE CODE: UR/0136/66/000/006/0077/0080

AUTHOR: Dolzhenkov, F. Ye.; Krivonosov, Yu. I.; Zakharov, L. A.

ORG: none

TITLE: Rolling titanium-steel bimetal in a vacuum and in an inert environment

SOURCE: Tsvetnyye metally, no. 6, 1966, 77-80

TOPIC TAGS: titanium, steel, bimetal, sandwich structure, metal rolling, vacuum technique

ABSTRACT: Sandwiches made of 9 mm thick sheets of No. 3 steel and 3 mm thick plates of titanium VT1-1 were hot rolled at vacuum levels below the usual 10^{-5} mm Hg range of residual pressure to determine the possibility of rolling satisfactory material and establish parameters of the process under such conditions. Pretreated surfaces were heated for 16 to 18 min to 1000C and rolled by a single pass at vacuum levels ranging from $1.5 \cdot 10^{-2}$ to $8 \cdot 10^{-5}$ mm Hg, pass speed 0.067 m/sec, and reduction levels of 8, 13, 20, and 30%. Results are discussed in terms of oxide film deposition, surface cracks at progressively lesser reduction levels as the vacuum magnitude is lowered, the effect of temperature, variance in deformation, forward slip for both component sheets, friction between rolled metal and roller, specific pressure in relation to area reduction level, and shearing strength of the bond. Other tests involved roll-

Card 1/2 UDC: 669-419.4

ACC NR: AP6020740

ing in an inert environment. Results indicate that high quality rolled bimetal requires vacuum levels of at least 10^{-4} magnitude or a continuously reestablished high purity argon environment. Orig. art. has: 4 figures.

SUB CODE: 11,13/ SUBM DATE: none/ ORIG REF: 003

Card 2/2

L [illegible] EWP(m)/EWP(t)/ETI/EWP(k) IJP(c) JD/HM

ACC NR: AP6031222 (N) SOURCE CODE: UR/0133/66/000/009/0813/0815

AUTHOR: Piryazev, D. I.; Krivonosov, Yu. I.; D'yachenko, K. K.; Timoveyev, D. I.; Khoroshilov, N. M. 44 27

ORG: Ukrainian Scientific Research Institute for Metals (Ukrainskiy nauchno-issledovatel'skiy institut metallov); Kommunarsk Metallurgical Plant (Kommunarskiy metallurgicheskiy zavod)

TITLE: Ways to improve the production technology of two layer steel plates

SOURCE: Stal', no. 9, 1966, 813-815

TOPIC TAGS: COMPOSITE MATERIAL, METAL ROLLING steel, composite steel, composite steel plate, plate pack rolling, composite plate casting/Kh18N10T steel, Kh17N13M2T steel, St. 3 steel, K20 steel

ABSTRACT: The Kommunarsk Metallurgical Plant produces two-layer composite steel plates, 8—25 mm thick by pack rolling; heavier, 25—50 mm thick, composite plates, thick, are rolled from composite ingot. The Kuznetsk Metallurgical Combine produces 6—40 mm thick composite steel plates from composite ingots. Experience showed both methods to have substantial shortcomings, and the yield is low. The Ukrainian Scientific Research Institute for Metals and the Zhdanov Metallurgical Plant im. Il'icha conducted an investigation in order to improve the quality and the yield of finished products. The investigation showed that pack rolling is a more suitable method of producing heavy composite steel plates than casting of composite ingots. To produce composite plates with more uniform layer thicknesses by pack rolling, the

Card 1/2 UDC: 621.771.8

L 08948-67

ACC NR: AP6031222

assembled packs should be preheated in car bottom furnaces or in soaking pits. To reduce production waste, the packs should have the maximum possible width and length, with the edge strips joined flush with the slab side faces. The pack thickness should be as small as possible but sufficiently thick to ensure satisfactory welding of the layers during rolling. By this technology, two-layer composite plates 32, 36, 80, 100 and 130 mm thick have been successfully rolled from 10—15 ton packs heated in a car bottom furnace. In all produced plates, a layer of Kh18N10T or Kh17N13M2T steel was welded satisfactorily with the base layer of St.3 or K20 steel. The rolling was done in a 4500 mm stand at the Zhdanov Metallurgical Plant. The plates were 2600 mm wide, although they could have been made 3000 mm wide. The quality of composite ingots can be appreciably improved by the use of less gas-liberating fluxes and better protection against oxidation of two-layer slabs during preheating. Orig. art. has: 4 figures and 5 formulas. [MS]

SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 005/

Card 2/2

ACC NR: AP6035654 (A) SOURCE CODE: UR/0133/66/000/011/1028/1029

AUTHOR: Kazarnovskiy, D. S. (Professor, Doctor of technical sciences); Gunin, I. V. (Candidate of technical sciences); Krivonosov, Yu. I. (Candidate of technical sciences); Kravtsova I. P. (Candidate of technical sciences); Saprygin, Kh. M. (Candidate of technical sciences); Arshavskiy, V. Z. (Candidate of technical sciences); Chetverikov, A. V. (Engineer); Mogilevskiy, I. I. (Engineer); Orinichev, [illegible] I. (Engineer)

ORG: none

TITLE: Production technology for high-strength rails

SOURCE: Stal', no. 11, 1966, 1028-1029

TOPIC TAGS: high strength steel, metal cladding, railway track, bimetal, hot rolling/M75X steel, G13 steel, Rk5 steel, St.5 steel

ABSTRACT: An investigation had been made to develop a process for producing bimetallic rails, i.e. rails with a high-strength steel head. St.5 steel billets clad with M75X, G13, or Rk5 alloy steels were hot-rolled into 100 x 150 mm bars which, after reheating, were rolled into R-18 type rails. Rails with arc-deposited cladding had the highest bond strength and the most satisfactory surface quality. With M75X or Rk5-steel cladding, satisfactory results were obtained with cast composite

Card 1/2 UDC: 621.771.26

ACC NR. AP6035654

or pack-rolled billets. Rails with G13 steel cladding as unsatisfactory properties. Orig. art. has: 3 figures.

SUB CODE: 13/ SUBM DATE: none

Card 2/2

ACC NR: AP6035924 SOURCE CODE: UR/0413/66/000/020/0184/0185

INVENTOR: Krivonosov, Yu. I.; Zakharov, L. A.; Dolzhenkov, F. Ye.; Bat', Yu. I.; Volchek, F. R.

ORG: none

TITLE: Method of manufacture composite metal articles. Class 49, No. 187496

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 184-185

TOPIC TAGS: composite metal, ~~clad metal composite metal production~~ METAL ROLLING, COMPOSITE MATERIAL

ABSTRACT: This Author Certificate introduces a method for manufacturing two-layer or multilayer metal articles according to Author Certificate No. 111925. To simplify the manufacture of large articles, vacuum rolling of the pack is done only to obtain a sufficient bonding with a reduction of 5—15%. The rest of the rolling is done in air.

SUB CODE: 13/ SUBM DATE: 18Jul63/

Card 1/1 UDC: 621.771.8-419.5

ACC NR: AP7002847 SOURCE CODE: UR/0136/66/000/012/0088/0089

AUTHOR: Krivonosov, Yu. I.; Dolzhenkov, F. Ye.; Myakshin, O.A.; Zakharov, L.A.

ORG: none

TITLE: Cladding of steel with niobium by vacuum rolling

SOURCE: Tsvetnyye metally, no. 12, 1966, 88-89

TOPIC TAGS: metal cladding, niobium clad steel, clad steel production

ABSTRACT:

Niobium-clad steel sheets were produced by rolling packs consisting of a St. 3 steel plate (9—12 mm thick) and a VN-2 niobium sheet (2 mm thick) in a vacuum (4.10^{-5} mm Hg) mill equipped with steel rolls, 166 mm in diameter, at 900–1200C with per pass reductions of 10—40%. The width of packs was 50 mm and the length was 140 mm. It was found that the strength of the bond between the clad and base metals increased with increasing rolling temperature. The shear strength was 100 Mn/m^2 (10 kg/mm^2) after 30% reduction at 900—1000C, and after the same reduction at 1100—1200 it was 210—230 Mn/m^2 (21—23 kg/mm^2). The bond strength also increased with

Card 1/2 UDC: 669.293.14-419

ACC NR: AP7002847

increasing per pass reduction. After 10% reduction at 1100C it did not exceed 100 Mn/m^2 (10 kg/mm^2), and after 30—40% reduction it reached 250 Mn/m^2 (25 kg/mm^2). However, high per pass reduction leads to a non-uniform deformation of the layers. Therefore, to ensure a reliable bond and more uniform deformation, it is advisable to roll at 1100—1200C, with 10—15% reduction per pass and 30—40% total reduction. [TD]

SUB CODE: 13, 11/ SUBM DATE: none/ ATD PRESS: 5113

Card 2/2

ACC NR: AP7002738 (N) SOURCE CODE: UR/0126/66/022/006/0884/0889

AUTHOR: Arkharov, V. I.; Ivanovskaya, S. I.; Krivonosova, A. S.

ORG: Institute of Metal Physics, AN SSSR (Institut fiziki metallov AN SSSR)

TITLE: Mechanism of the high-temperature oxidation of nickel

SOURCE: Fizika, metallov i metallovedeniye, v. 22, no. 6, 1966, 884-889

TOPIC TAGS: high temperature oxidation, nickel, metal scaling, metal grain structure, metal diffusion

ABSTRACT: As revealed by previous investigations (V. I. Arkharov, Z. A. Voroshilova, ZhTF, 1936, 6, 781; V. I. Arkharov, G. D. Lomakin, ZhTF, 1944, 14, 155), the scale forming in the process of the high-temperature oxidation of Ni contains a single phase (NiO) and consists of two morphologically different layers (Fig. 1): an inner layer formed by tiny randomly oriented (nontextured) crystals, and an outer textured macrocrystalline layer whose texture is characterized by the positioning of the (001) planes of NiO at an angle of ~10° to the outer surface of the scale and is the more distinct and macrocrystalline the higher the temperature is. Two different interpretations of these findings are possible: 1) the macrocrystalli-

Card 1/3 UDC: 669.24:620.191

ACC NR: AP7002738

nity and texturedness of the outer layer are due to the recrystallization of the NiO forming at the metal-scale interface; 2) the principal role is played by the diffusion of Ni across the scale toward the outer layer of the scale. To clarify this question a series of specimens having the form of thin plates (0.2-0.5 mm thick) was completely oxidized until all the metal become transformed into scale and subsequently heated at the same temperature (1200°C) for an additional 30-40 hr, while another series of more massive (3-5 mm thick) specimens was oxidized so as to obtain a layer of scale ~0.2 mm thick on each. This layer was mechanically separated from the specimens and, as in the first part of the experiment, heated at 1200°C for an additional period of time. During the third series of experiments 0.1-0.3 mm thick layers of scale, separated from massive specimens of the metal were placed face downward on Ni metal (i.e. their outer layer now became the inner layer) and annealed in air. Microstructural and radiographic examinations were carried out during each stage of the experiments. Findings: on elimination of contact between Ni scale and Ni metal further heating of the scale led to no microstructural changes. On the other hand, when the scale remains in contact with the metal, microstructural changes in the scale continue in the course of further heating, with the microcrystals growing in size and the oxidation of the Ni metal continuing, i.e. the directional diffusion of Ni across the scale toward the outer layer takes place and plays the principal role as also demonstrated by the fact that in specimens with "inverted" scale the microcrystals grow into textured macrocrystals and the process of oxidation of the nickel coated

Card 2/3

ACC NR: AP7002738

Fig. 1. Microstructure of NiO scale (sectional view, magnification 120 times): 1 - outer layer; 2 - inner layer; 3 - metal

with the inverted scale continues, i.e. a diffusion flux across the scale occurs. The reason for the microcrystallinity and nontexturedness of the inner layer of the scale (at the scale-metal interface) is that at this interface the volume of the newly forming oxide virtually corresponds to the space freed in the reaction zone owing to the departure of the metal diffusing across the scale toward the outer layer of the scale. This correspondence is absent in the outer layer of the scale and it is this that accounts for the strain hardening and enlargement in volume of the newly forming crystals in this layer. Orig. art. has: 4 figures.

SUB CODE: 11, 13, 20/ SUBM DATE: 22Nov65/ ORIG REF: 003/ OTH REF: 004

Card 3/3

NOVGORODSKAYA, E.M.; LOSEVA, A.G.; KRIVONOSOVA, K.I.

Colienteritis in young children caused by enteropathogenic Escherichia coli of the serological type "9." Trudy Len. inst. epid. i mikrobiol. 21:40-53'60. (MIRA 16:6)

1. Iz laboratorii kishechnykh infektsiy Leningradskogo instituta epidemiologii, mikrobiologii i gigiyeny imeni Pastera i kafedra pediatrii Pervogo Leningradskogo meditsinskogo instituta.
(ESCHERICHIA COLI) (INTESTINES—DISEASES)

NOVGORODSKAYA, E.M.; KAZENSON, L.B.; KRIVONOSOVA, K.I.

Colienteritis in newborn infants caused by a rare serological type O111:B4:H12 Escherichia coli. Zhur. mikrobiol., epid. i immun. 40 no.9:116-119 S'63. (MIRA 17:5)

1. Iz Leningradskogo instituta epidemiologii i mikrobiologii imeni Pastera.

USSR / Cultivated Plants. Potatoes. Vegetables. Melons. M-3

Abs Jour: Ref Zhur-Biol., No 6, 1958, 25031

Author : Bobryshev, F. I., Krivonosova, L.
Inst : Stavropol Agricultural Inst.
Title : The Starchiness of Potatoes in Relation to Planting Quantities and Times

Orig Pub: Sb. nauchno-issled. rabot stud. Stavropol'sk. s.-kh. in-t, 1956, vyp. 4, 48-50

Abstract: No abstract.

Card 1/1

52

KOROLENKO, Vvladislav Tikhonovich; SIMONOV, Nikolay Konstantinovich; KRIVONOSOVA, N., red.

[Best grain crop varieties in Uzbekistan] Luchshie sorta zernovykh kul'tur Uzbekistana. Tashkent, Izd-vo "Uzbekistan," 1964. 86 p. (MIRA 18:3)

BUTSKOV, N.A.; NASYROV, Ya.M.; PANKOV, M.A., doktor sel'khoz. nauk, otv. red.; KURANOVA, L.I., red.; KRIVONOSOVA, N.A., red.; SOROKINA, Z.I., tekhn. red.

[Soils in the southwestern Kyzyl Kum] Pochvy IUgo-Zapadnykh Kyzylkumov. Tashkent, In-t pochvovedeniia, 1961. 198 p. (MIRA 15:7)

(Kyzyl Kum--Soils)

TASHPULATOV, Buran; KRIVONOSOVA, N.A., red.; BABAKHANOV, A., tekhn. red.

[Fattening young sheep for meat and fat production in Uzbekistan] Otkorm molodniaka miaso-sal'nykh porod ovets v Uzbekistane. Tashkent, Gosizdat UzSSR, 1963. 19 p. (MIRA 17:2)

DZHVENTSKIY, Grigoriy Yakovlevich; KRIVONOSOVA, N.A., red.

[Automation of the irrigation system of Uzbekistan and methods for determining its economic efficiency] Avtomatizatsiia irrigatsionnykh sistem Uzbekistana i metody opredeleniia ee ekonomicheskoi effektivnosti. Tashkent, In-t ekonomiki i organizatsii sel'skokhoz. proizvodstva, 1961. 53 p. (MIRA 18:5)

TYULENEV, A.M.; BUZUNOV, I.A.; ASKAROV, A.A., kand. tekhn. nauk; OSTANKOV, A.G., kand. tekhn. nauk; IVANOV, A.I., kand. tekhn. nauk [deceased]; KHORST, G.O., kand. tekhn. nauk; BUTYRIN, M.V., kand. tekhn. nauk; PEREVERZEV, S.K., kand. tekhn. nauk; KRIVONOSOVA, N.A., red.

[Manual for irrigation engineers] Spravochnik gidrotekhnika-irrigatora. Tashkent, Uzbekistan. Pt.2. 1964, 328 p. (MIRA 18:10)

OZOLIN, Petr Karlovich; KRAVCHENKO, Lyubov' Kononovna; KRIVONOSOVA, N.A., red.

[Cultivation of roses in Uzbekistan] Kul'tura roz v Uzbekistane. Tashkent, "Uzbekistan," 1965. 47 p. (MIRA 18:12)

KRIVONOSOVA, N.M.

Representation of the elements of shore zone dynamics and morphology on medium- and large-scale maps and charts. Trudy Okean.kom. 8: 195-200 '61. (MIRA 14:5)

1. Institut okeanologii AN SSSR.
(Maps—Symbols) (Seashore)

KRIVONOSOVA, N.M.

Methodology of compiling atlases of the dynamics and morphology of seashores. Okeanologiia 2 no.5:912-916 '62. (MIRA 15:11)

1. Institut okeanologii AN SSSR.
(Coast changes)

SIVCHIKOVA, M.G. [Syvchykova, M.H.], kand. tekhn. nauk; KRIVONOSOVA, N.T. [Kryvonosova, N.T.]; SARKISOV, G.G. [Sarkisov, H.H.]; SYCHEVSKAYA, M.I. [Sychevs'ka, M.I.]

Ways to eliminate the "cold crack" in faience. Leh. prom. no.1:68-69 Ja-Mr '65. (MIRA 18:4)

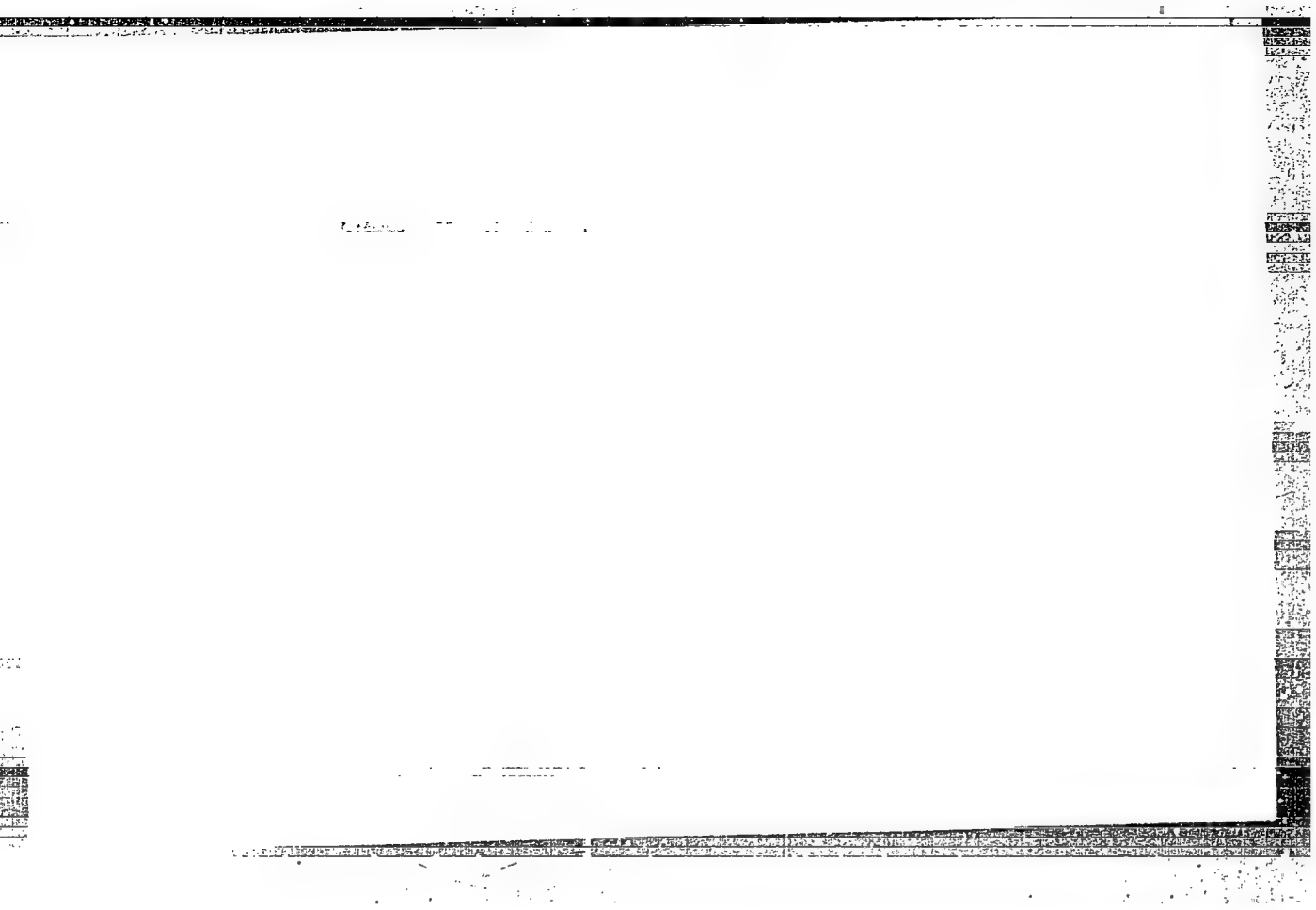
KRIVONOSOVA, O. V. (Aspirant, Moscow Technological Institute of the Meat and the Dairy Industry.).

"Incidence of erysipeloid..."
Veterinariya, vol. 39, no. 2, February 1962 pp. 34

OZHIGANOV, V.S.; LEVANTO, M.A.; KOROLEVA, V.A.; Prinimali uchastiye: KOZLOVSKIY, N.I.; ABOIMOV, P.S.; STARTSEVA, G.B.; KRIVONOSOVA, R.B.; SHERSTYUK, M.I.; KONOVALOVA, T.S.; ZHABOTINSKIY, I.M.; RADIN, F.A.

Improving the technology of producing electrical steel. Stal' 22 no.4:343-346 Ap '62. (MIRA 15:5)

1. Verkh-Isetskiy metallurgicheskiy zavod.
(Steel—Electric properties)



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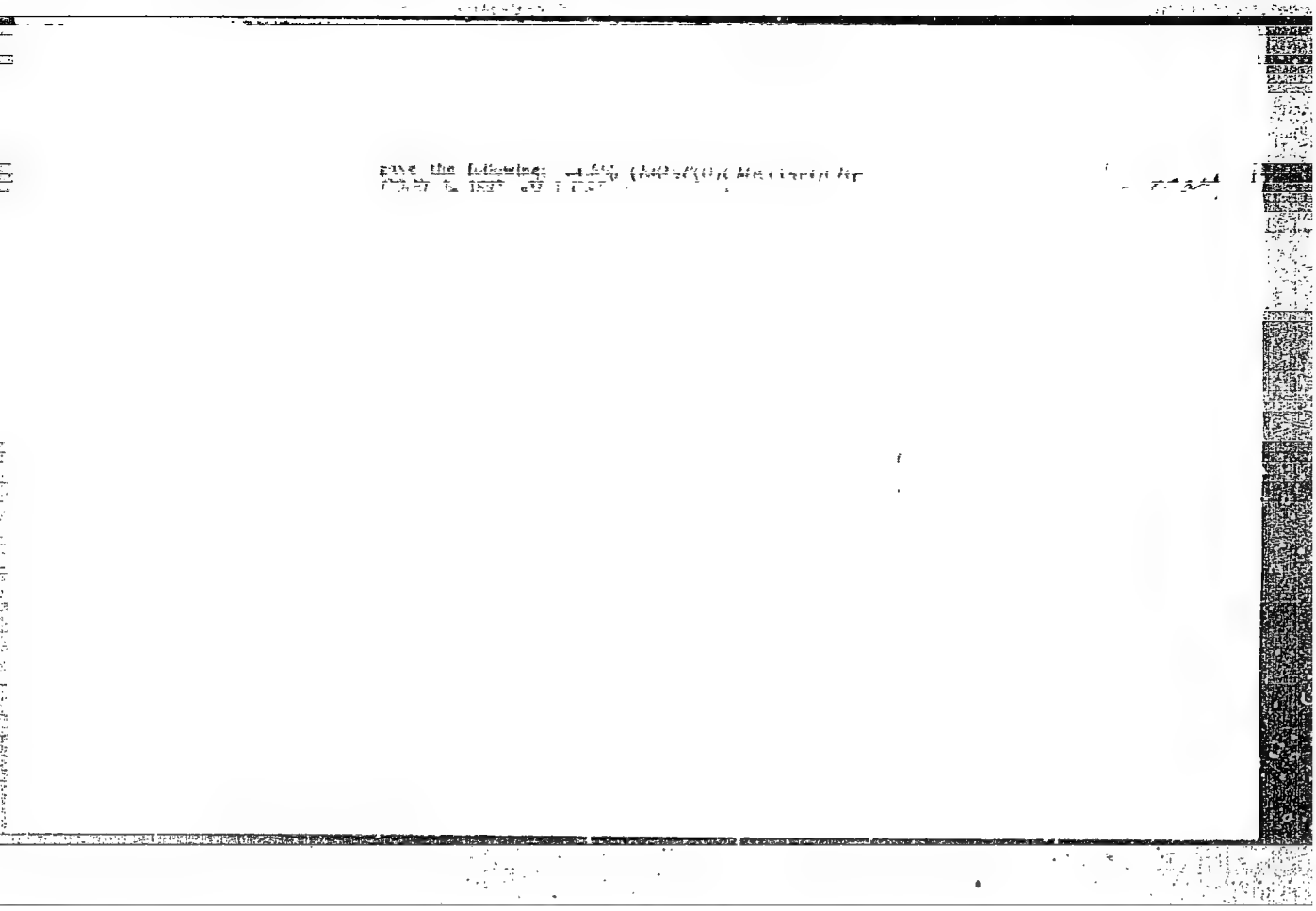


KRIVONOSOVA, Ye.G.

Methods of exposing dislocations in transformer steel.
Zav.lab. 26 no.6:725-728 '60. (MIRA 13:7)

1. Moskovskiy institut stali im. I.V.Stalina.
(Steel--Metallography) (Dislocations in metals)

KRIVONOSOVA, Ye.G.; LIVSHITS, B.G.

Anisotropy of the hysteresis of deformed silicon iron crystals.
Fiz.met.i metalloved. 14 no.6:930-932 D '62. (MIRA 16:2)

1. Moskovskiy institut stali i splavov.
(Silicon steel--Metallography)
(Hysteresis)

KRIVONOSOVA, Ye.G.; LIVSHITS, B.G.

Effect of deformation on the anisotropy of the coercive force of iron silicide single crystals. Izv. AN SSSR. Ser. fiz. 28 no. 3:580-583 Mr '64. (MIRA 17:5)

S/148/63/000/003/006/007
E111/E435

AUTHORS: Krivonosova, Ye.G., Livshits, B.G., Molotilov, B.V.

TITLE: Influence of tempering on the domain structure of deformed single crystals of silicon iron

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, no.3, 1963, 144-147

TEXT: During plastic deformation (of the order of 1%) of a crystal of iron-silicon alloy, the domain structure on the (110) plane was preserved. In the present work the stability of such a structure, with "decoration" of dislocations concentrated in slip planes, is considered. A large series of crystals of 3% iron-silicon alloy (with about 0.01% carbon), obtained by recrystallization at 1150°C for 24 hours, were studied. The crystals were 1.5% deformed by stretching in the [001] direction and the plane parallel to the (1$\bar{1}$0) crystallographic plane was examined before and after tempering at 400°C for 30 minutes. This tempering produced no redistribution of dislocations but caused a rearrangement of the domain structure. This rearrangement is due to precipitation of carbon on dislocations concentrated in slip planes.
Card 1/2

Influence of tempering ...

Slip planes "decorated" with carbon are a substantial demagnetizing obstacle in the path of the magnetic flux. The rearrangement changes the anisotropy of the coercive force: after tempering the direction of easy magnetization will be that perpendicular to [001], this direction itself no longer being "easy". This effect was also observed after 5% deformation and tempering. There are 5 figures.

ASSOCIATION: Moskovskiy institut stali i splavov i institut pretsizionnykh splavov im. Bardina
(Moscow Institute of Steel and Alloys and Institute of Precision Alloys imeni Bardina)

SUBMITTED: November 16, 1962

Card 2/2

ACCESSION NR: AP4023410 S/0048/64/028/003/0580/0583

AUTHOR: Krivonosova, Ye.G.; Livshits, B.G.

TITLE: Effect of deformation on the anisotropy of the coercive force of Si iron single crystals /Report, Symposium on Ferromagnetism and Ferroelectricity held in Leningrad 30 May to 5 June 1963/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.28, no.3, 1964, 580-583

TOPIC TAGS: silicon iron, coercive force, silicon iron coercive force, coercive force anisotropy, deformation coercive force influence, deformation domain structure influence

ABSTRACT: Two types of anisotropy of the coercive force have been reported for silicon iron: $H_{c\langle 100\rangle} < H_{c\langle 111\rangle} < H_{c\langle 110\rangle}$ (type 1), and $H_{c\langle 100\rangle} < H_{c\langle 111\rangle} < H_{c\langle 110\rangle}$ (type 2). The present investigation of the effect of plastic deformation and anneal on anisotropy of the coercive force, and magnetic structure, was undertaken in order to clarify this situation. Sheets of coarse grained transformer steel containing 3% Si were given a (110) [001] orientation by cold rolling and a 24 hour high temperature vacuum anneal. Small plates consisting of several highly oriented crystals were cut from the sheets

Card 1/3

ACCESSION NR: AP4023410

for investigation. The crystals were subjected to plastic deformation by tension in the [001] direction. Bands were etched in different directions on the exposed (110) face of the deformed crystals, and the coercive force in these bands was measured with an astatic magnetometer. The dislocation structure was examined by means of a metallurgical microscope, and the magnetic structure was observed with magnetic suspensions. The anisotropy of the coercive force of the undeformed crystals was of type 1. After deformation, the anisotropy was of type 2 and much greater than before. The deformed crystals had a type "A" magnetic structure with the domain walls and the magnetization within the domains in the [001] direction. Regular rows of etch pits, representing dislocations, appeared in the directions of intersection of slip planes with the crystal surface. Annealing at 350 to 550° in zero field environment increased the coercive force in the [001] direction and decreased it in the $[1\bar{1}0]$ direction. The anisotropy was thereby greatly decreased, but it remained of type 2. The authors suggest that [001] ceases to be an easy magnetization direction during the anneal because of the resistance to magnetic flux offered by the slip planes. The dislocation distribution remained unaffected by the low temperature anneal, but the domain structure was reconstituted. Dense deposits of magnetic suspension appeared along directions parallel to the slip planes. These represent magnetic poles in regions of increased dislocation density, rather than domain walls. Annealing

Card 2/3

ACCESSION NR: AP4023410

at 700° led to a further decrease of the coercive force anisotropy which, however, remained of type 2. A lamellar polygonal structure appeared, and the dislocation rows reoriented themselves perpendicularly to the slip direction. Annealing at 1200° resulted in a return to type 1 anisotropy and a reduction of the dislocation density. Orig.art.has: 2 formulas and 3 figures.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 10Apr64 ENCL: 00

SUB CODE: PH NR REF SOV: 005 OTHER: 005

Card 3/3

L 13405-63 BDS/EWT(1)/EEC(b)-2 AFFTC/ASD/ESD-3 IJP(C)
ACCESSION NR: AP3000092 S/0126/63/015/004/0497/0503

AUTHOR: Krivonosova, Ye. G.; Livshits, B. G.

TITLE: Cold-hardening effect upon the coercive force of iron silicide monocrystals

SOURCE: Fizika metallov i metallovedeniye, v. 15, no. 4, 1963, 497-503

TOPIC TAGS: cold-hardening effect, coercive force anisotropy

ABSTRACT: The coercive force anisotropy in the annealed and deformed monocrystals of a 3% iron silicide has been studied. The samples were deformed by stretching in the [001] direction and annealed at temperatures ranging from 130-1200C. The dislocation structure on the plane (110) has been investigated. The results obtained for the basic crystallographic directions were tabulated and an attempt was made to correlate the experimental results obtained with the theoretical conclusions of F. Vicena and other investigators of plastic deformation effect upon metal magnetic properties. The authors conclude that the magnitude of anisotropy in toroidal samples is approximately equal to the fourth root of relative sample elongation. The nature of the coercive force anisotropy (H sub c) in etched nondeformed crystals as well as in the annealed and stretched samples corresponds to the relation 1 of Enclosure 1. Plastic strain in the [001] direction originates

Card 1/3

L 13405-63
ACCESSION NR: AP3000092

anisotropy which is characterized by the relation 2 of Enclosure 1. The annealing of deformed crystals (with a magnetic protection) at the temperatures from 350-550C decreases anisotropy and increases the magnitude of coercive force in the /001/ direction. A decrease in dislocation densities during the annealing of deformed crystals is accompanied by a decrease in coercive force. Orig. art. has: 4 formulas, 1 table, and 6 figures.

ASSOCIATION: Moskovskiy institut stali i splavov (Moscow Steel and Alloys Institute)

SUBMITTED: 07Jul62 DATE ACQ: 12Jun63 ENCL: 01

SUB CODE: 00 NO REF SOV: 005 OTHER: 007

Card 2/3

1. Z. A. KRIVONOSOVA

2. USSR (600)

4. Biology - Study and Teaching

7. Work of the municipal commission of teacher-biologists. Est. v. shkole no. 1. 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

KRIVONOSOVA, Z. F.

"The Pathogenic Role of Anopheles plumbeus steph", Med. Paraz. i Paraz. Bolez., Vol. 17, No. 1, pp 93, 1948.

S/032/63/029/002/008/028
B101/B186

AUTHORS: Ganopol'skiy, V. I., Krivonozhnikova, L. G., and Shvarev, V.S.

TITLE: Use of complexone I for the spectrophotometric determination of cerium

PERIODICAL: Zavodskaya laboratoriya, v. 29, no. 2, 1963, 162

TEXT: Instead of K_2CC_3, nitrilo triacetic acid (complexone I) is proposed as a much more intensive complex former capable of holding up to 1000 mg rare-earth oxides in solution in 25 ml. The nitrilo triacetate complexes of the rare-earth elements are formed in ammoniacal solution, Ce is oxidized with H_2O_2, and the light absorption of the cerium complex is determined spectrophotometrically at 300 mμ. The light absorption follows Beer's law at CeO_2 concentrations from 1 to 32 μg/liter. Coloring of the solution sets in within 40 min, and remains stable for 2 hrs. Up to 40 mg/ml of other rare-earth elements and small amounts of Ti, Fe, V, Cr, Mn, Co, and Ni do not interfere. The sensitivity is $3 \cdot 10^{-3}$%

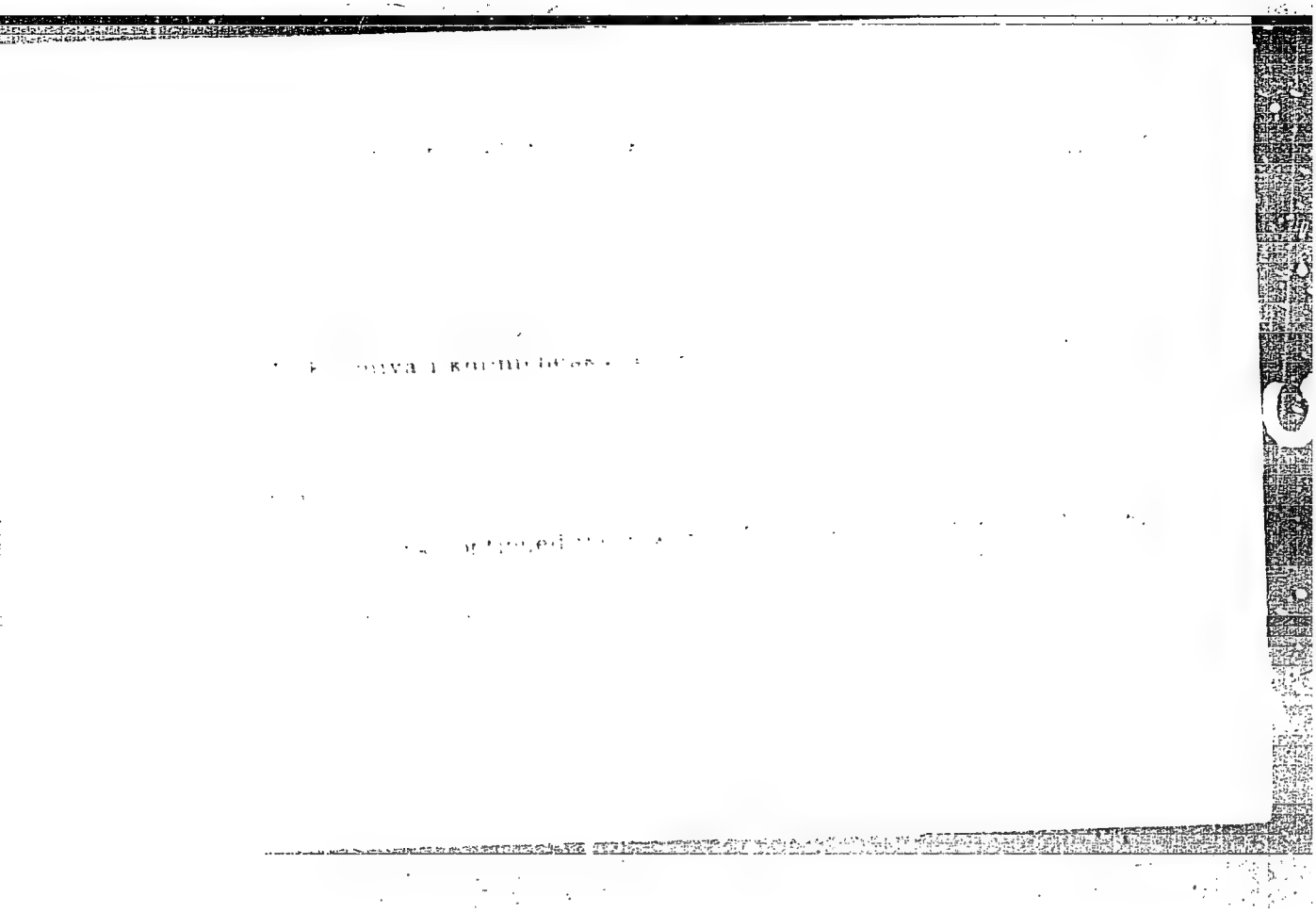
Card 1/2

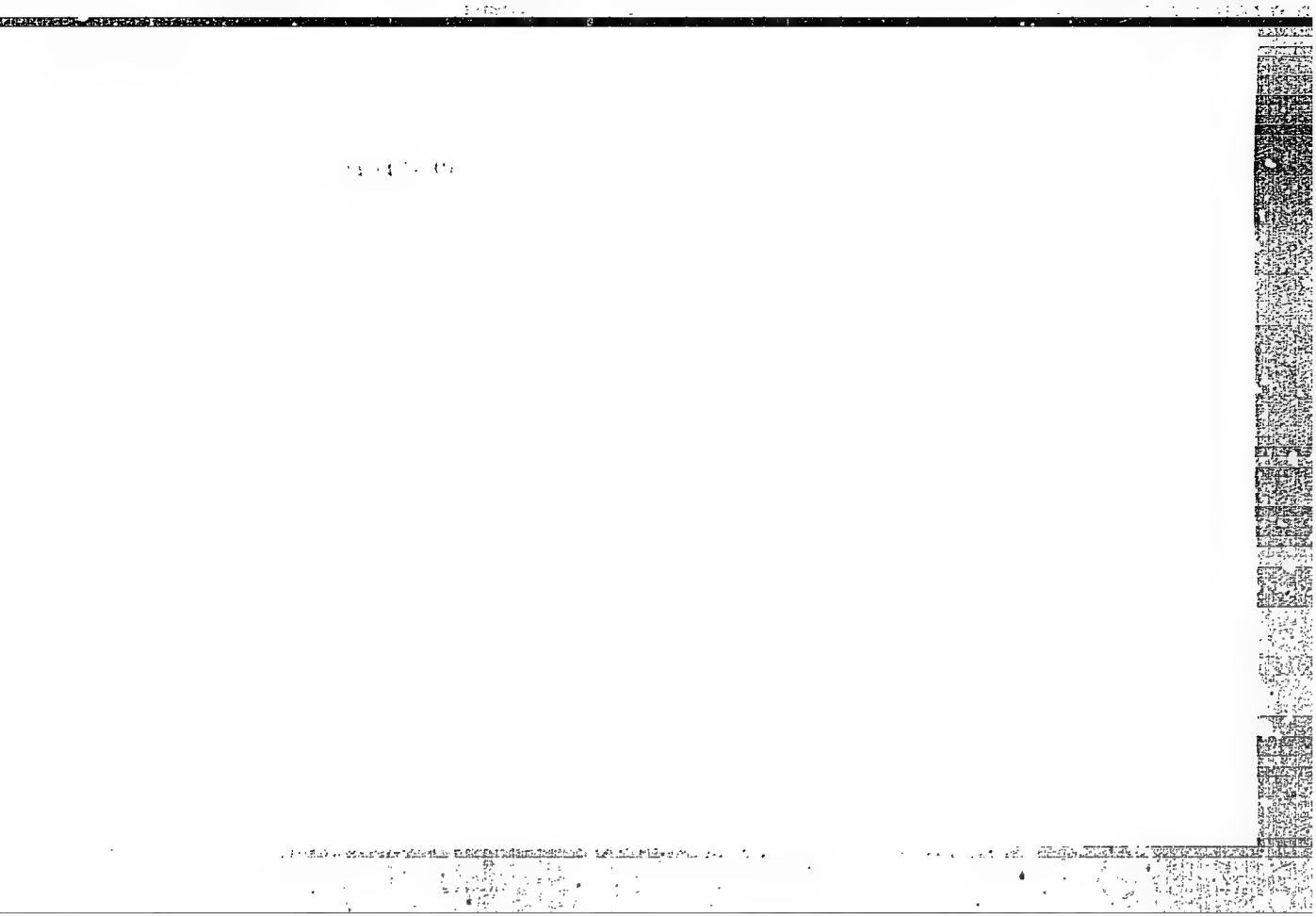
using a cuvette 10 mm long, and $3 \cdot 10^{-4}$% using a 100 mm cuvette. The mean deviation is ±2.5%.

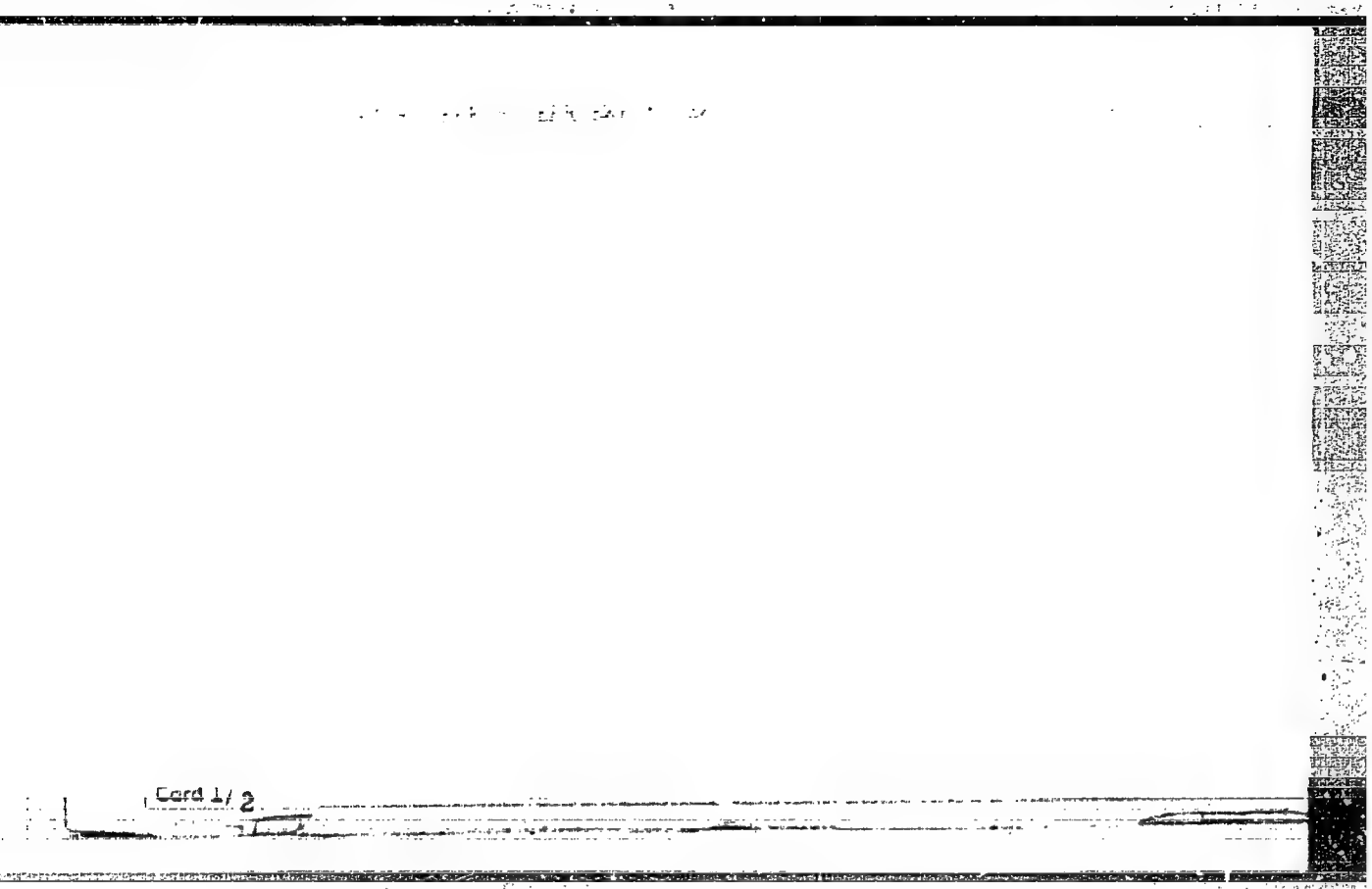
GANOPOL'SKIY, V.I.; KRIVONOZHNIKOVA, L.G.; SHVAREV, V.S.

Spectrophotometric determination of cerium. Izv.vys.ucheb.zav.; khim. i khim. tekh. 6 no.6:913-917 '63. (MIRA 17:4)

1. Ural'skiy gosudarstvennyy universitet imeni Gor'kogo, kafedra analiticheskoy khimii.







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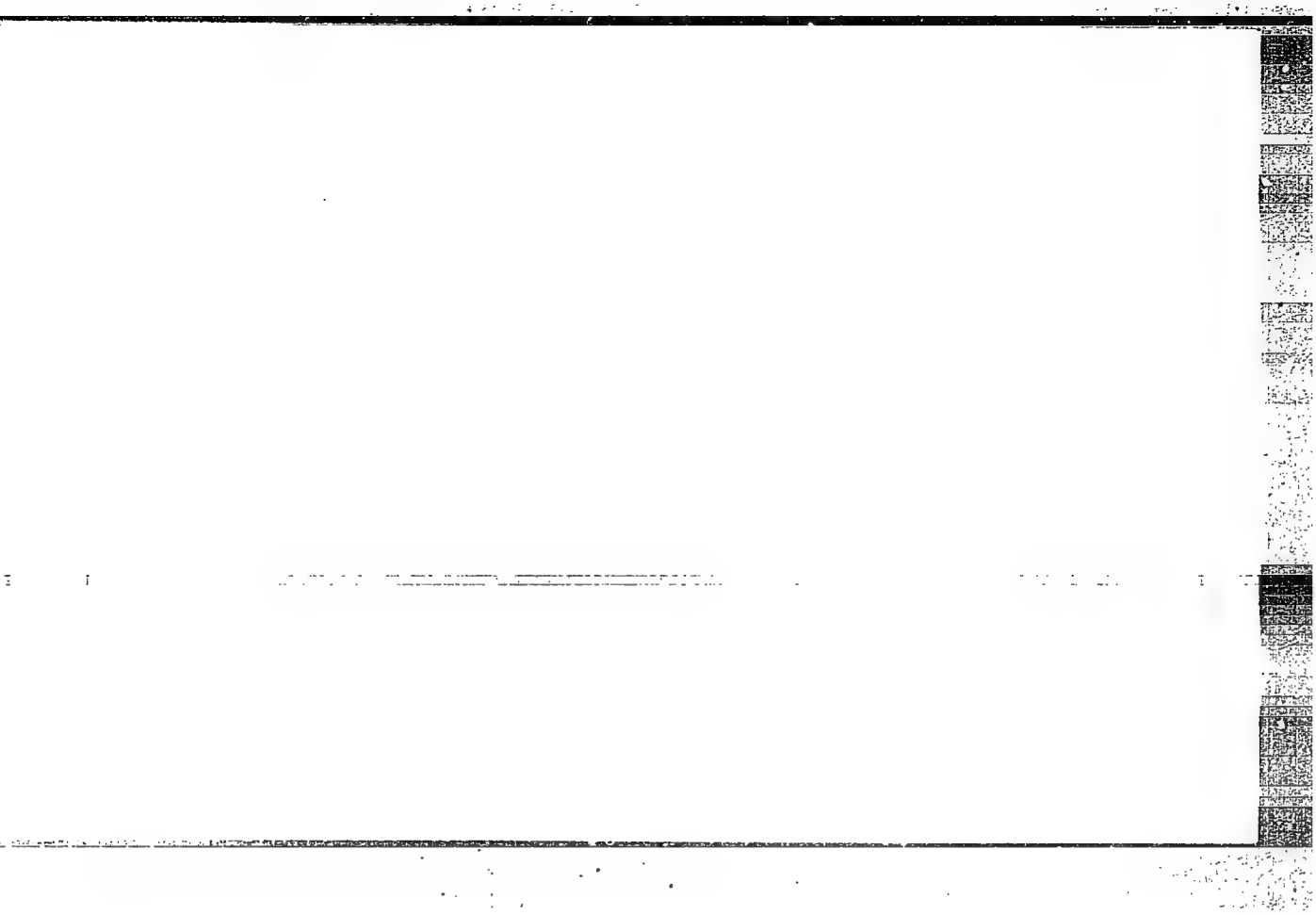

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KRIVONOZHKIN, I.I., inzh.; YEFIMOV, L.L.

New design of a circular saw for hot and cold cutting. Konstr.krup.mash. no.1:73-79 '62. (MIRA 16:2)

(Circular saws)

KRIVONOZHKO, V.A.

R25/25 electrically driven controllable pump. Mash. i neft. obor. no.8:31-32 '63. (MIRA 17:6)

1. Lebedyanskiy mashinostroitel'nyy zavod TSentral'no-Chernozemnogo sovnarkhoza.

KRIVOPALOV, P.

KRIVOPALOV, P.

Advertising-moving pictures

Eloquent advertisement
Kinomekhanik, No. 10, 1952

Monthly List of Russian Accessions, Library of Congress, May 1952. UNCLASSIFIED

BARKOV, N.K.; KRIVOPALOV, V.A.

Automatic device for developing conditioned response. Biul. eksp.biol. i med. 59 no.5:114-117 '65.

(MIRA 18:11)

1. Laboratoriya farmakologii nervnoy sistemy (zav. - deystvitel'nyy chlen AMN SSSR - prof. V.V.Zakusov) Instituta farmakologii i khimioterapii AMN SSSR, Moskva. Submitted November 22, 1963.

SOROKIN, S.S.; SELEZNEV, S.I.; MERKULOV, M.A.; GALUZINSKIY, P.A.; KRIVOPALOV, V.I.; MAYATSKIY, I.G.; PARASHUTIN, N.V.; SUDARIKOV, V.R.; MERKULOV, M.A.; TARBEYEV, A.A.; IL'YUSHENKOVA, T.P., tekhn. red.

[Accounting in industrial enterprises] Bukhgalterskii uchet v promyshlennykh predpriiatiiakh. Pod red. S.S.Sorokina. 2., perer. izd. Moskva, Gosstatizdat, 1962. 333 p. (MIRA 16:3)

1. Russia (1923- U.S.S.R.) TSentral'noye statisticheskoye upravleniye. Upravleniye podgotovki kadrov schetnykh rabotnikov. 2. Upravleniye podgotovki kadrov schetnykh rabotnikov TSentral'nogo statisticheskogo upravleniya SSSR (for all except Il'yushenkova).

(Accounting)

TOMASHEVSKIY, Yuriy Ivanovich; KRIVOSHCH, Yuriy Mikhaylovich; DEGTYAREV, Lev Mikhaylovich; SVET, Ye.B., red.

[Mechanized casting of grinding media in chills] Mekhanizirovannaia otlivka meliushchikh tel v kokil'. Cheliabinsk, Cheliabinskoe knizhnoe izd-vo, 1961. 29 p. (MIRA 17:9)

18(5), 28(1) SOV/128-59-10-10/24

AUTHORS: Pozdnyshev, V.M., Candidate of Technical Sciences, Sal'nikov, V.V., Krivopalov, Yu.I., Tomashevskiy, Yu.I., and Shabonov, N.S., Engineers

TITLE: Conveyer Mould Machine for the Casting of Mill Balls

PERIODICAL: Liteynoye proizvodstvo, 1959, Nr 10, pp 30-31 (USSR)

ABSTRACT: The authors present a technology for mass production of mill balls, which has been developed by the Nauchno-issledovatel'skiy institut tekhnologii mashinostroyeniya Chelyabinskogo sovnarkhoza (Scientific Research Institute for Technology of Machine Building of the Chelyabinsk Sovnarkhoz), together with the Katav-Ivanovyy liteyno-mekhanicheskiy zavod (Katav-Ivanovo Foundry Mechanical Factory). This technology is based on a conveyer mould machine with vetical plane and with continuous Priming (Fig.1). The basic part of the machine is a vertical closed chain (#1), on which the moulds are fastened and transported by special rolls (#2). The moulds have a traveling part (#3) and a fixed part (#3a). The chain moves in two gears on the frame (#4). The metal is poured with the pouring plat-

Card 1/2

Conveyer Mould Machine for the Casting of Mill Balls

form (#5) onto that section of the chain which has the maximum tension (#6). At the present time, complete mechanization of mill ball production is being worked on. There are 2 photographs.

ALEKSANDROVA, Ye.M.; SHITS, L.A.; ROMM, I.P.; Prinimala uchastiye KRIVOPALOVA, I.S.

Influence of nonionogenic surface-active substances on aggregative stability of polystyrene latex stabilized by sodium oleate. Dokl. AN SSSR 148 no.3:637-640 Ja '63. (MIRA 16:2)

1. Moskovskiy khimiko-tekhnologicheskiy institut im. D.I. Mendeleyeva. Predstavleno akademikom P.A. Rebinderom.
(Surface-active agents) (Styrene polymers)

667.633.263.3

AUTHOR: Sorokin, M.F.; Kochnev, I.M.; Krivopalova, I.S.

were shown to depend on the initial ratio of the esters in the reaction mixture and on the

Card 1/2

[redacted] and
6 tables.

ASSOCIATION: none

KRIVOPISK, R.Z., inzh.

Using industrial methods in installing electric wiring during the construction of a synthetic rubber plant. Mont.i spets.rab.v stroi. 22 no.4:6-10 Ap '60. (MIRA 13:8)

1. Trest Bashelektromontazh.
(Bashkiria--Rubbdr industry)
(Electric wiring)

TYAPKINA, N.D.; KRIVOPOLENOVA, M.M.; VAVILOV, V.S.

Electric properties of p-germanium with beryllium impurity. Fiz. tver. tela 6 no.7:2192-2194 Jl '64. (MIRA 17:10)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.

ACCESSION NR: AP4041733 S/0181/64/006/007/2192/2194

AUTHORS: Tyapkina, N. D.; Krivopolenova, M. M.; Vavilov, V. S.

TITLE: Electric properties of beryllium doped p-type germanium

SOURCE: Fizika tverdogo tela, v. 6, no. 7, 1964, 2192-2194

TOPIC TAGS: germanium, beryllium, electric conductivity, carrier density, temperature dependence

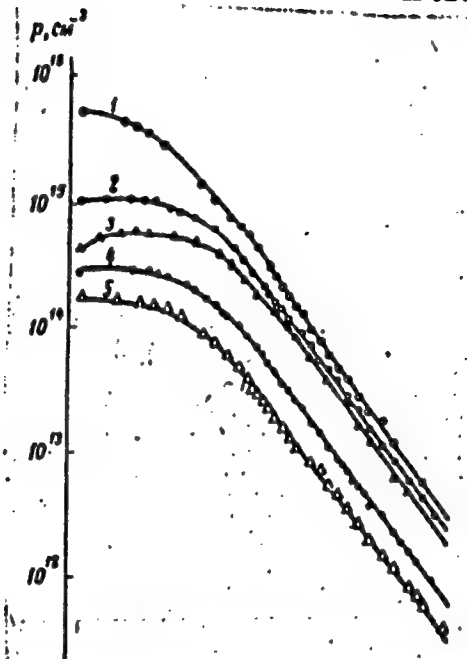
ABSTRACT: In order to determine the upper acceptor energy level of beryllium in compensated and higher-resistivity germanium specimens, the authors measured the temperature dependence of the carrier density and of the electric conductivity of doped germanium plates 2 x x 3 x 15 mm in the temperature range 300--55K. The compensating impurity was phosphorus. The plates were cut from the ingot perpendicular to the [111] crystal growth axis. The measurements were made in a double metallic cryostat. A null method was used with a

Card 1/4

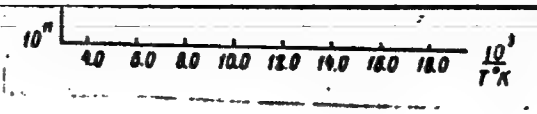
ACCESSION NR: AP4041733

ENCLOSURE: 01

Dependence of carrier density on the temperature for different samples
Sam



Card 3/4



ACCESSION NR: AP4041733

ENCLOSURE: 02

Values of ionization energy in the investigated samples

1 № образца	2 Концентрация бериллия $N_{Be} \cdot 10^{-15}$, $см^{-3}$	3 Концентрация фосфора $N_P \cdot 10^{-15}$, $см^{-3}$	N_P / N_{Be}	4 Энергия ионизации ΔE, эВ
157(2)	0.8	1.4	1.75	0.064
169(1)	0.83	1.5	1.81	0.064
169(5)	0.75	0.9	1.20	0.063
184(5)	1.2	1.4	1.17	0.064
181(6)	6.8	8.4	1.24	0.064

1 - sample no. 2 - beryllium density in $10^{-5} cm^{-3}$, 3 - phosphorus density
4 - ionization energy, eV

Card 4/4

DUGANOV, G.V., doktor tekhn. nauk; SHTAN'KO, I.M., inzh.; KEFER, V.N., kand. tekhn. nauk; KRIVOPOLYANSKIY, L.N., inzh.

Experimental study of the parameters of air cooling equipment at the Sadon Mine. Izv. vys. ucheb. zav.; gor. zhur. no.8:76-81 '64 (MIRA 18:1)

1. Dnepropetrovskiy ordena Trudovogo Krasnogo Znameni gornyy institut imeni Artema (for Duganov, Shtan'ko). 2. Makeyevskiy nauchno-issledovatel'skiy institut po bezopasnosti rabot v gornoy promyshlennosti (for Kefer, Krivipolyanskiy).

KRIVOPUSK, L.N.

Blood transfusion in pregnancy in maternal sensitization to fetal Rh factor. Akush. gin. no.5:79-80 Sept-Oct 1953. (CLML 25:4)

1. Of Ordzhonikidze Railroad Hospital (Head -- N. Z. Gladilin) and Blood Transfusion Station (Head -- L. N. Krivopusk).

KRIVORUK, M.Ye.

Ammonia, glutamic acid, glutamine and γ-aminobutyric acid in the lumber and ventricular fluid of patients with tumors of the central nervous system. Vop.med.khim. 11 no.5:59-63 S-O '65. (MIRA 19:1)

1. Kafedra nervnykh bolezney Kubanskogo meditsinskogo instituta i kafedra biokhimii Rostovskogo gosudarstvennogo universiteta. Submitted May 11, 1964.

KRIVOPUSK, Petr Konstantinovich; PILYUTSKIY, Nikolay Danilovich; MOSHAROVA, T.P., red.; SARAYEV, B.A., tekhn. red.

[Along the road of technical progress] Dorogoi tekhnicheskogo progressa. Moskva, Izd-vo "Morskoi transport," 1960. 78 p. (MIRA 14:6)

(Cargo handling--Equipment and supplies)

KRIVOPUSK, P.T.

Results of modified Gaberer-Roux resection of the stomach. Vest. khir. 84 no.5:115-120 My '60. (MIRA 13:12)
(STOMACH—SURGERY)

KRIVOPUSKIN, V.S.

Giant splenic abscess. Khirurgiia no.8:71-72 Ag '51. Khirurgiia no.8:71-72 Ag '54. (MLRA 7:11)

1. Iz Izberbashskoy gorodskoy bol'nitsy Dagestanskoy ASSR.
(SPLEEN, abscess,
giant)
(ABSCESS,
spleen, giant abscess)

SOV-117-58-10-5/35

AUTHORS: Taiperfin, I.M. and Krivopust, M.L., Engineers

TITLE: A Machine for Group Calibration of Piston Rings of Tractor Engines (Stanok dlya gruppovoy kalibrovki porshnevykh kolets avtotraktornykh dvigateley)

PERIODICAL: Mashinostroitel', 1958, Nr 10, pp 6 - 7 (USSR)

ABSTRACT: The Odesskiy zavod traktornykh zapasnykh chastey (Odessa Plant of Tractor Spare Parts) when using the horizontal 6S-1 milling cutter for final-dimension milling of the joints of piston rings of tractor engines, found that this machine often broke down, causing low productivity. As a result, a special machine with hydraulic drive (fig. 1) for group calibration of the joint in piston rings was developed by the designers of the plant. The kinematic scheme and hydraulic drive are shown on fig. 2. There are 2 diagrams.

1. Piston rings---Cabibration 2. Milling machines (Engineering) ---Equipment

Card 1/1

KRIVOPUST, V.I.; PRESNYAKOV, I.R., Geroy Sotsialisticheskogo Trud-; MEZENTSEV, V.A.; POPOD'KO, Ye.T.

On the road of technical progress. Elek.i tepl.tiaga 3 no.12: 3-9 D '59. (MIRA 13:4)

1. Nachal'nik depo Liski Yugo-Vostochnoy dorogi (for Krivopust). 2. Master avtomatnogo tsekha depo Liski Yugo-Vostochnoy dorogi (for Presnyakov). 3. Master tsekha toplivnoy apparatury depo Liski Yugo-Vostochnoy dorogi (for Mezentsev). 4. Master tsekha bol'shogo periodicheskogo remonta Yugo-Vostochnoy dorogi (for Popod'ko).

(Liski--Railroads--Repair shops)

KRIVOPUSTOV, I.Ye., inzh.

Improvement in the operation of the automatic control system of an electric power plant mounted on railroad cars. Energetik 9 no.6:13 Je '61. (MIRA 16:7)

(Electric power plants)
(Automatic control)

KRIVOPUSTOV, N., polkovnik

Motorized rifle company in a reconnaissance group. Voen. vest. 43 no.2:35-38 F '64. (MIRA 17:1)

KRIVOPUSTOV, N., polkovnik

Reconnaissance group in action. Voen. vest. 42 no.7:30-32 Jl '62. (MIRA 15:6)
(Military reconnaissance)

KRIVOROG, S. A.

USSR/Mines May 48
Mining Methods
Drainage

"Drainage of the Section of the Baydakovsk Pit by Means of Larger Ground Shafts is Inefficient," S. A. Krivorog, Engr-Hydrologist; I. I. Kognovitskiy, 1 p

"Ugol'" No 5 (266)

Article was written in answer to N. G. Kivel's "Preliminary System for Draining the Sub-Coal Water Bearing Strata of the Baydokovsk Pit by Means of Open Drains Which Lead to Large Wells for Storage and Collection of Water." Krivorog

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USSR/Mines (Cont'd) May 48

presents his objections and gives examples. In his article, Kognovitskiy gives examples of uselessness of Kivel's suggestion at Ukrainian coal mines.

[redacted] 1/49T91

KRIVOROG, S. A.

USSR/Mining Methods
Pumps

Jun 48

"Intensive Lowering of the Water Level at the Poplevinsk Coal Field," D. M. Khokhlovkin, S. A. Krivorog, Engineers, 8 3/4 pp

"Ugol'" No 6 (267)

Describes location of deposits with aid of meridional hydrogeological section. Gives plan of pits showing pumping points. Pumps used were artesian 5-stage ATN-14 type; characteristics are reproduced. Operations are described in detail. Gives diagrams and photographs.

6/49T90

KRIVOROG, S. A.

USSR/Mining Methods
Coal

Dec 48

"Preliminary Results of the Draining of the Poplevino Coal Fields," Ye. P. Kravtsov, D. M. Khokhlovkin, Mintopstroy, S. A. Krivorog, Soyuzshakhtoosusheniye, 4 pp

"Ugol'" No 12 (273)

Coal Field is located in Skopinsk Rayon, Ryazan Oblast, near the Oktyabr'Ugol Trust and has access to Moscow-Donbass railroad. Describes the enterprise, and past production. Map shows disposition of tunnels and results of water pumping from the shafts.

PA 20/49T85

SKABALLANOVICH, I.A.; KRIVOROG, S.A., otvetstvennyy redaktor; SLOVOROSOV, A.Kh., redaktor; VOROB'IEV, A.A., redaktor; PROZOROVSKAYA, V.L., tekhnicheskiy redaktor; ALADOVA, Ye.I., tekhnicheskiy redaktor.

[Hydrogeological computations of the movement of underground waters] Gidrogeologicheskie raschety po dinamike podzemnykh vod. Moskva, Ugletekhizdat, 1954. 388 p. (MLRA 8:1)
(Water, Underground)